

Remarks

The Applicant thanks the Office for the consideration given the present application in the initial Detailed Action on the merits of the claims. With the foregoing amendments and the ensuing remarks, the Applicant has endeavored to respond most properly to each of the points raised by the Office to ensure that the specification and claims now presented are allowable in all respects. With this in mind, the Applicant respectfully requests that the Office review and allow the current specification and claims.

In brief summary, the present application was filed with 63 claims in total with claims 1 and 29 standing independently. Based on the Office's continued restriction requirement, claims 24-28, 32, 35-45, and 54-58 have been withdrawn from consideration. The withdrawn claims have been amended as necessary for proper dependency. With the current amendment, claims 1-3, 29-31, 33, 34, and 46-48 have been canceled and claims 64-68 have been added thereby leaving claims 4-23, 49-53, and 59-68 pending for consideration. Of the claims pending for consideration, claims 4, 7, 9, 11, 50, and 67 stand independently.

Claim Rejections Under 35 USC §§ 102, 103

With respect to the patentability of the claims, the Office rejected claims 1-18, 22, 29-31, 33, 34, 46-48, 50-53, 59-61, and 63 as being anticipated by U.S. Patent No. 5,680,875 to Winters. Claims 1, 23, 29-31, 33, 34, and 59-63 were rejected as being anticipated by U.S. Patent Publication No. 2002/0170570 of Bergman. Claims 14, 23, and 62 were rejected as being obvious under 35 U.S.C § 103 over the combined references of Winters and Bergman. Still further, claims 19-21 and 49 were found to be obvious based on Winters in combination with U.S. Patent No. 3,745,788 to

Sullivan.

For an anticipation rejection to be proper, the cited prior art reference must identically disclose the claimed invention. As the Federal Circuit wrote recently, “[f]or a prior art reference to anticipate in terms of 35 U.S.C. § 102, *every element* of the claimed invention must be *identically* shown in a single reference.” *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990) (emphasis supplied); See also, *PPG Industries, Inc. v. Guardian Industries Corp.*, 75 F.3d 1558, 37 USPQ2d 1618 (Fed. Cir. 1996).

It is also well settled that a proper obviousness analysis requires that one consider the entire claim as a whole in comparing the claimed invention to the disclosures of the prior art. When references are sought to be combined or modified, “[t]here must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination [or modification]. The knowledge cannot come from the applicant's invention itself.” *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). For each modification or combination, there must be a reasonable expectation of success and the prior art reference or references must teach or suggest *all* of the claim limitations. See, e.g., MPEP § 706.02(j); *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

In the present case, the Applicant submits that each independent claim patentably defines over the prior art, particularly as the claims have been amended herein. Applicant further submits that each dependent claim is allowable in that it depends from an allowable base claim and in that each adds further patentable limitation thereto.

Looking first to newly independent and amended claim 4, the Applicant respectfully submits that the claim is not anticipated by Winters. Indeed, the limitations of claim 4 are neither taught nor

suggested by Winters or any other cited reference, whether alone or combined. As amended, claim 4 requires, among other things, a dispensing member with a rotatably retained dispensing bobbin, an activating switch for selectively enabling a dispensing of floss from the dispensing member, "a means for preventing an accumulation of dental floss relative to the dispensing member including during a triggering of the activating switch *comprising a means for ensuring unidirectional, dispensing rotation of the dispensing bobbin*", an accumulating member that is "*structurally separate from the dispensing member*", and "a means for accumulating dental floss relative to the accumulating member." (Emphasis supplied.)

Winters fails to disclose or suggest any means whatsoever for preventing an accumulation of dental floss relative to the dispensing member and certainly does not teach Applicant's claimed "means for ensuring unidirectional, dispensing rotation of the dispensing bobbin." Indeed, Winters does not appear even to have contemplated the desirability of preventing the accumulation of dental floss relative to a dispensing bobbin and, as such, cannot fairly be said to anticipate or suggest Applicant's particularly claimed means for so doing. Furthermore, amended claim 4 now specifically requires that the accumulating member that be structurally separate from the dispensing member. As a result, it is further ensured that claim 4 is patentably distinct over Bergman, which discloses a unitary structure.

Based on these and further limitations, the Application submits that amended claim 4 is neither anticipated nor rendered obvious by the cited art. Its reconsideration and allowance are respectfully requested.

Claim 5 enjoys patentability beyond base claim 4 in that it requires that "the activating switch enables a dispensing of a predetermined length of dental floss." Such an arrangement is

never taught or even alluded to in Winters or, to the Applicant's knowledge, any other cited reference. As a result, claim 5 is independently patentable over claim 4.

Claim 6, which has been amended to depend from claim 4, further requires that the accumulating member, already claimed as being structurally separate from the dispensing member, comprises "an accumulating ring with an aperture for receiving a finger of a user." Such a structure cannot fairly be said to be anticipated by Winters. The "take-up spool member 12" in Winters is essentially a simple square or otherwise shaped stick. Winters does not identically disclose Applicant's clearly claimed structure such that an anticipation rejection based thereon is improper.

Still further, newly-added claim 64 is additionally patentable in that it requires that the means ensuring a unidirectional rotation of the dispensing bobbin comprises a ratchet arrangement. No corresponding structure is taught or suggested by any cited reference or combination thereof.

Amended, newly independent claim 7 also cannot fairly be said to be taught or suggested by the cited art. For example, claim 7 requires a dispensing member comprising a dispensing ring, a dispensing bobbin rotatably retained relative to the dispensing member, an accumulating member, and an accumulating bobbin rotatably retained relative to the accumulating member. Winters fails to anticipate or suggest such a structure. Winters cannot properly be said to show or describe an apparatus having dispensing and accumulating members *each* with a rotatably retained accumulating bobbin. As noted previously, Winters merely discloses a "take-up spool member 12" that is a simple square stick onto which dental floss is reeled. Winters does not disclose or suggest an accumulating bobbin such that an anticipation rejection cannot properly be made.

Claim 8 adds further patentability to claim 7 by additionally requiring an activating switch "for selectively enabling a retraction of dental floss relative to the accumulating member." Since

Winter fails to disclose an accumulating member having any bobbin or similar accumulating means whatsoever, the conclusion is compelled that Winters does not disclose or suggest Applicant's claimed accumulating member with an activating switch.

The Applicant further submits that newly independent claim 9 is not anticipated or rendered obvious by the cited art because it requires, among other things, structurally separate dispensing and accumulating members, an activating switch for selectively enabling a retraction of floss relative to the accumulating member, and "a means for inducing an *automatic* accumulation of dental floss relative to the accumulating member during a triggering of the activating switch." With its disclosure of a stick around which floss can be manually wrapped, Winters cannot properly be said to identically disclose or even suggest providing Applicant's claimed means for automatically accumulating dental floss. Since no automated accumulating means is contemplated in Winters, the Office's reconsideration and allowance of claim 9 are respectfully requested.

Claim 12, which has been amended to depend from claim 9, adds patentable limitation thereto by additionally requiring a dispensing bobbin rotatably retained relative to the dispensing ring and an accumulating bobbin rotatably retained relative to the accumulating ring. Such a structure is not found in Winters or any other cited reference. For example, the "take-up spool member 12" in Winters simply does not have a rotatably retained bobbin such that an anticipation rejection cannot properly be founded on Winters.

Claim 13 adds even further patentability since it requires that the dispensing bobbin be disposed in a housing of the dispensing ring and that the accumulating bobbin be disposed within a housing of the accumulating ring. Winters does not include a housing for an accumulating bobbin such that anticipation is prevented.

Claim 15 is additionally patentable since it requires an activating means operably associated with the means for accumulating dental floss relative to the accumulating ring for selectively enabling a rotation of the accumulating bobbin to yield a retraction of dental floss relative to the accumulating ring. Since it has no accumulating bobbin, Winters certainly cannot properly be said to teach or suggest an activating means for selectively enabling the rotation of such a bobbin. Claims 16 and 65 are still more unique in that they additionally demand a means for *automatically* rotating the accumulating bobbin. Nowhere in Winters is such an automated rotating means taught or suggested. Even more clearly not taught or suggested by the cited art are claims 18 and 66 for their requiring that the "means for automatically rotating the accumulating bobbin comprises a coil spring" and then additionally claiming "a means for enabling a winding of the coil spring." A coil spring for enabling an automatic rotation of an accumulating bobbin with a means for winding the same is simply not taught or suggested by any cited reference or reasonable combination or modification thereof.

Claim 10 is even more clearly patentable over the cited art since it demands "a locking means for preventing a retraction of dental floss from the accumulating member including during a triggering of the activating switch." It will first be noted that Winters does not have an accumulating member with an activating switch. More importantly, however, Winters does not have any means to prevent a retraction of dental floss from the accumulating member as claim 10 requires. By preventing the retraction of dental floss from the accumulating member, Applicant's claimed invention further improves the sanitary nature of the flossing process since contaminated floss cannot be undesirably drawn out.

The dental hygiene apparatus of claim 11 is also not taught or suggested by even the

combined prior art. Nowhere in the cited references is there disclosed or rendered obvious a dental hygiene apparatus with, among other things, a dispensing member and a structurally separate accumulating member that are color coded to enable a user to differentiate between the dispensing member holding clean floss and the accumulating member holding contaminated floss.

Independent claim 50 also clearly patentably defines over the cited art for its requiring a floss retaining member comprising “floss retaining knuckles” with first and second rings, each with an aperture for receiving a finger of a user and a means for retaining dental floss therewithin. Such floss retaining knuckles cannot fairly be said to be taught or suggested by Winters, Bergman, Sullivan, or any other cited reference or combination thereof.

Each of claims 51-53 and 59-63 adds patentable limitation to base claim 50. For example, claim 51 specifies a floss retaining bobbin for each of the first and second rings, which is even more clearly not found in the prior art. Claim 52 is also independently patentable since it requires a single bobbin that surrounds the apertures in the first and second rings. Claim 59 even further requires that the means for enabling a transfer of dental floss relative to the floss retaining member comprises an activating switch in combination with a means for rotating the floss retaining bobbin. Claim 61 is still more clearly not taught or anticipated by the cited art since it specifies a coil spring and a means for enabling a winding of the coil spring, which is nowhere found in the cited art.

Newly-added independent claim 67 also patentably defines over the cited references since it requires a dispensing member, a dispensing bobbin rotatably retained relative to the dispensing member, an accumulating member structurally separate from the dispensing member, and an accumulating bobbin rotatably retained relative to the accumulating member with the dispensing bobbin enclosed within a housing of the dispensing member and the accumulating bobbin enclosed

within a housing of the accumulating member. With the exposed dental floss on the "take-up spool member 12" of Winters, it is clear that Winters does not disclose or suggest Applicant's claimed housing. Importantly, by enclosing used dental floss on the accumulating member within a housing, contamination and other unsanitary conditions are prevented. In Winters, however, not only is contaminated dental floss constantly exposed but also a user must handle, squeeze, and manipulate the same to make use of the device. Finally, claim 68 adds patentable limitation to base claim 67 since it specifies, among other things, a means for inducing an automatic rotation of the bobbin during a triggering of the activating switch.

On a more general level with respect to the claims presently at issue, it will be noted that the claimed differences in structure beget significant differences and advantages in function. For example, by providing a rotatable accumulating bobbin for accumulating contaminated dental floss in place of Winters' simple square stick, the Applicant's claimed invention enables contaminated dental floss to be drawn into the accumulating member and onto the bobbin without a need for being touched and otherwise manipulated by the user. With this, the sanitary nature of the flossing process is markedly improved.

Furthermore, by having Applicant's claimed dispensing and accumulating bobbins enclosed within housings, clean floss on the dispensing member is prevented from being contaminated from outside sources. Also, the user is advantageously shielded from coming into contact with contaminated floss on the accumulating member. This is in direct opposition to the structure of Winters since a user must repeatedly handle exposed, contaminated floss to rotate and manipulate the stick that forms the "take-up spool member 12" taught in Winters.

Still further, apart from plainly preventing a proper anticipation rejection based on

Bergman's unitary structure, Applicant's claimed structurally separate accumulating and dispensing members enable critical advantages in the function and use of Applicant's invention. For example, by providing structurally separate accumulating and dispensing members, Applicant's claimed arrangement permits a user to manipulate floss, such as to wrap around a tooth to be cleaned, in a manner that simply cannot be achieved with the Bergman device. With the unitary construction taught by Bergman, maneuvering in the compound angles and complex configurations demanded for proper flossing is prevented.

Additionally, under the Bergman construction, contaminated floss is passed through "receiving opening 34" where debris removed from a user's teeth will inevitably accumulate. That receiving opening is designed for insertion into the user's mouth thereby creating a situation of unsanitary, repeated contamination. Under Applicant's claimed structure, however, contaminated floss is reeled into an accumulating member that is never inserted into a user's mouth. With this, risk of unnecessary contamination is substantially eliminated. Contaminated floss can be advanced and placed out of risk of contact with the user with no need for being touched.

Even further, it will be noted that, under the Bergman arrangement, clean and contaminated floss are retained within the same housing thereby further increasing the risk of cross-contamination. Conversely, under Applicant's claimed invention, clean floss and contaminated floss are retained in entirely separate housings whereby cross-contamination is effectively prevented.

Conclusion

Because no cited reference identically discloses the claimed invention and because there is no suggestion in the art to modify or combine any of the prior art references to approximate the

claimed invention, the Applicant most respectfully submits that the claims now presented are patentable over the cited art. With this in mind, the Office's reconsideration and allowance of the specification and claims are respectfully requested.

The Applicant believes that all issues raised in the Detailed Action have been responded to fully. However, if, after consideration of the above amendments and comments, there remain any open issues in this application that possibly can be resolved by a telephone interview, then the Applicant's undersigned attorney most respectfully requests that he be called to discuss and attempt to resolve those issues.

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Respectfully Submitted,

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